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IS: 6642 - 1986

Indian Standard
SPECIFICATION FOR
MASON'S MALLETS
(First Revision)

UDC 621.972.71:693



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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard SPECIFICATION FOR MASON'S MALLETS (First Revision)

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(Continued on page 2)

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IS: 6642 - 1986

(Continued from page 1)

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Indian Standard SPECIFICATION FOR MASON'S MALLETS (First Revision)

O. FOREWORD

- **0.1** This Indian Standard (First Revision) was adopted by the Indian Standards Institution on 27 January 1986, after the draft finalized by the Timber Stores Sectional Committee had been approved by the Civil Engineering Division Council.
- **0.2** A series of Indian Standards are being formulated to cover various wooden mallets, largely used by Defence, Railways and other agencies. This standard is intended to cover the requirements of mason's mallets.
- **0.2.1** This standard was first published in 1972. The recent revision of this standard is based on the experience gained over the years. Based on the research and development more species of timber have been added. Additional species for blocks for testing of mallet have been included.
- 0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS: 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard covers the requirements of mason's mallets.

2. TERMINOLOGY

2.1 For the purpose of this standard, the definitions given in IS: 707-1968† shall apply.

^{*}Rules for rounding off numerical values (revised).

[†]Glossary of terms applicable to timber and timber products (first revision).

IS: 6642 - 1986

3. MATERIAL

3.1 Head

- a) The mallet head shall be manufactured from any of the timbers given in Appendix A.
- b) The timber shall be well seasoned to a moisture content not exceeding 15 percent and the inclination of the grain shall not exceed 1 in 20. The timber shall be free from sapwood, centre-heart (pith), any kind of decay (rot), insect attack, knots, cracks, splits, shakes and any other defect which is likely to reduce the life of the fabricated heads.
- 3.2 Handle The mallet handle shall be manufactured from any of the timbers specified for Class V handles in IS: 620-1985*. The requirements for the manufactured handle shall be as given in IS: 620-1985*.

4. MANUFACTURE

- 4.1 The mallet head and handle shall be manufactured to the shape and design as shown in Fig. 1.
- 4.2 It is recommended that immediately after manufacture, the handle and the head be dipped in raw linseed oil at room temperature as this retards changes in moisture content and subsequent development of surface cracks.
- 4.3 The handle shall be snugly fitted to the head.

5. DIMENSIONS AND TOLERANCES

- 5.1 Dimensions The mallet shall conform to the dimensions as given in Fig. 1.
- **5.2 Tolerances** The tolerances shall be as given below:
 - a) Handle

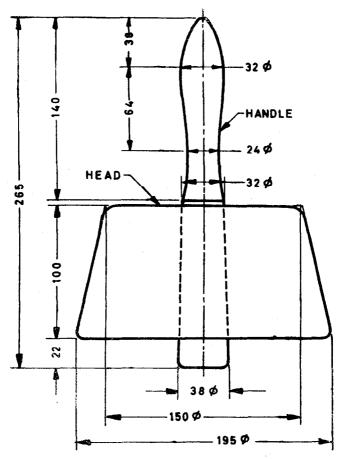
1) Where the head fits + 3 mm - 0 mm
2) At other places ± 2 mm

b) Head Normal manufacturing tolerances

6. WORKMANSHIP AND FINISH

6.1 The mallet shall be properly shaped and finished smooth all over. The brazing or welding of joints of the bands shall be clean and sound.

^{*}General requirements for wooden tool handles (third revision).



All dimensions in millimetres.

Fig. 1 Mason's Mallets

7. TEST

7.1 Each mallet shall be struck twelve times, as in normal use, against a block of salwood or axlewood or babul or anjan. At the end of this test, neither the head nor the handle shall show any sign of failure.

8. TREATMENT

8.1 Unless otherwise specified by the purchaser, the mallets shall be thoroughly soaked in hot (about 90°C) raw linseed oil for one hour and allowed to drain. They shall then be wiped clean with a dry piece of cloth.

9. PACKING

9.1 Unless otherwise specified, the mallet shall be securely tied and packed in gunny cloth in convenient lots for easy handling in transit.

10. SAMPLING

10.1 The method of drawing representative samples of mason's mallets and criteria for conformity shall be as prescribed in Appendix G of IS: 620-1985*.

11. MARKING

- 11.1 Each mallet shall be legibly and indelibly marked with the following information:
 - a) Manufacturer's name or initials or recognized trade-mark, and
 - b) Year of manufacture.
- 11.1.1 The mallet may also be marked with the ISI Certification Mark.

Note — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

APPENDIX A

[Clause 3.1 (a)]

TIMBER SPECIES FOR MALLET HEADS

Sl No.	Botanical and Trade Name
1.	Acacia nilotica (babul)
2.	Albizia lebbeck (kokko)
3.	Albizia odoratissma (kala siris)
4.	Albizia procera (safed siris)
5.	Amoora spp. [(amari)

^{*}General requirements for wooden tool handles (third revision).

Sl No.	Botanical and Trade Name
6.	Anogeissus latifolia (axlewood)
7.	Anogeissus pendula (kardahi)
8.	Artocarpus hirsutus (aini)
9.	Chloroxylon swietenia (satinwood)
10.	Dalbergia sissoo (sissoo)
11.	Diospyros spp. (ebony)
12.	Dysoxylum malabaricum (white cedar)
13.	Grewia spp. (dhaman)
14.	Hardwickia binata (anjan)
15.	Lagerstreemia lanceolata (benteak)
16.	Mitragyna parvifolia (kaim)
17.	Morus laevigata (bola)
18.	Morus spp. (mulberry)
19.	Ougenia oojeinensis (sandan)
20.	Pterocarpus marsupium (bijasal)
21.	Shorea robusta (sal)
22.	Tectona grandis (teak)
2 3.	Terminalia alata (laurel)
24.	Terminalia chebula (mijrobalan)
25.	Terminalia manii (black chuglam)
26.	Terminalia paniculata (kindal)
27.	Xylia xylocarpa (irul)
28.	Zanthoxylem rhetsa (mullilam)

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

QUANTITY	Unit	Symbol
Length	metre	m
Mass	kilogram	kg
Time	second	S
Electric current	ampere	Α
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

QUANTITY	Unit	Symbol
Plane angle	radian	r a d
Solid angle	steradian	sr

Derived Units

QUANTITY	Unit	Symbol	DEFINITION		
Force	newton	N	$1 N = 1 kg.m/s^2$		
Energy	joule	3	1 J = 1 N.m		
Power	watt	W	1 W = 1 J/s		
Flux	weber	Wb	1 Wb = 1 V.s		
Flux density	tesla	T	$1 T = 1 \text{ Wb/m}^2$		
Frequency	hertz	Hz	$1 \text{ Hz} = 1 \text{ c/s (s}^{-1})$		
Electric conductance	siemens	S	1 S = 1 A/V		
Electromotive force	volt	V	1 V = 1 W/A		
Pressure, stress	pascal	Pa	$1 Pa = 1 N/m^2$		



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